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G. JANCsó

BIBLIOGRAPHY ON VAPOUR PRESSURE  
ISOTOPE EFFECTS

SUPPLEMENT I

*Hungarian Academy of Sciences*

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G. Jancsó

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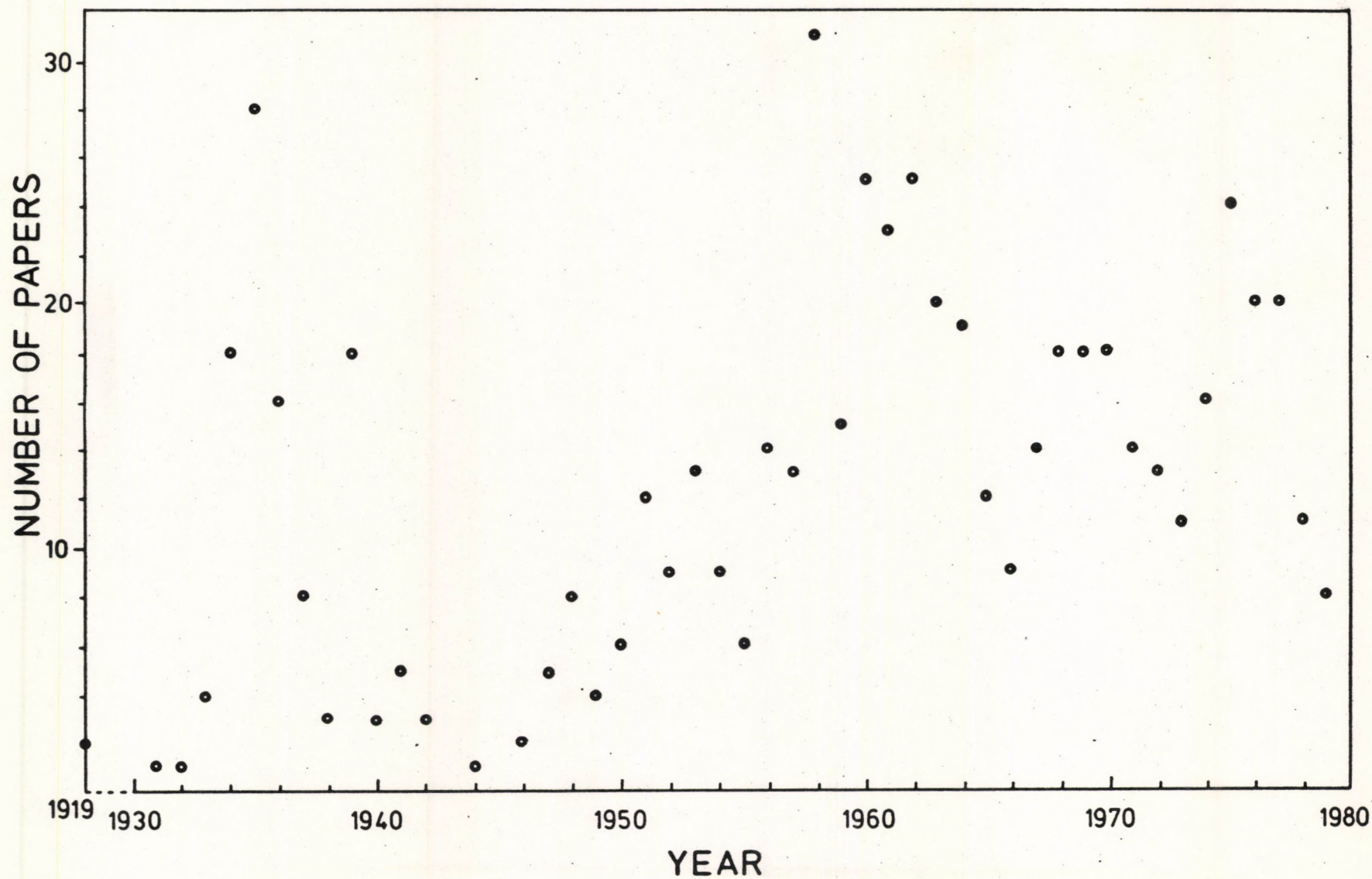
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Number of papers published on vapour pressure isotope effects

1000 800 600 400 200

1000

800

600

400

200

NUMBER OF FIBERS



## INTRODUCTION

The first Bibliography on Vapour Pressure Isotope Effects /KFKI Report 76-10 (1976) was published in 1976 and covered the literature of the period from 1919 through December 1975. The present Supplement reviews the literature from January 1976 through December 1979. It also includes some references overlooked in the first volume and Errata to it. The serial numbers are continued from the first Bibliography so the first reference in this Supplement has the number 488.

The bibliography is arranged in chronological order; within each year the references are listed alphabetically according to the name of the first author of each work. In cases where the original paper was not available, the reference - usually in Chemical Abstracts - is also given. Works are in English, unless otherwise marked. The bibliography is followed by a Compound Index listing the names of compounds, but for simplicity the type of isotopic substitution is not shown. In preparing the Compound Index, the nomenclature used in Lange's "Handbook of Chemistry" /McGraw-Hill Book Co., Inc., 1961/ was followed. When this nomenclature gave an uncommon name for a familiar compound both names have been given. The Author Index includes all authors of the papers.

Notification of any errors and references which have been overlooked, will be gratefully received.

|                         |                   |                             |
|-------------------------|-------------------|-----------------------------|
| <u>List of Symbols:</u> | C.A.              | : Chemical Abstracts        |
|                         | Nucl. Sci. Abstr. | : Nuclear Science Abstracts |
|                         | F                 | : in French                 |
|                         | G                 | : in German                 |
|                         | H                 | : in Hungarian              |
|                         | R                 | : in Russian                |



## BIBLIOGRAPHY

### 1934

488. A. Klemenc, O. Bankowski von Frugnoni  
Naturwissenschaften 22, 464 /1934/  
Deuterated acetylene. /G/
489. J.M.A. deBruyne, C.P. Smyth  
J. Am. Chem. Soc. 57, 1203 /1935/  
The dipole moment of deuteroammonia.

### 1936

490. H. Erlenmeyer, H. Lobeck, H. Gärtner, A. Epprecht  
Helv. Chim. Acta 19, 336 /1936/  
Benzene-d<sub>6</sub> and a phenyl-d<sub>3</sub>-carboxylic acid. /G/

### 1937

491. A. Kruis, L. Popp, K. Clusius  
Z. Elektrochem. 43, 664 /1937/  
Transitions in solid hydrides and deuterides. /G/

### 1947

492. T.L. Chang, Y.C. Wei  
Science Reports Natl. Tsing Hua Univ. A4, 451 /1947/; C.A. 42,  
7236h /1948/  
Ethyl alcohol-D.
493. K. Clusius, G. Wolf  
Z. Naturforsch. 2a, 495 /1947/  
Low temperature research IV. The molecular heat, heat of transformation, heat of melting, and entropy of DCl, DBr, and DI. /G/

### 1948

494. J.H. Hildebrand, A. Gee  
J. Am. Chem. Soc. 70, 427 /1948/  
Relative association of hydrogen and deuterium fluorides in the liquid state.



495. K. Stokland  
Kgl. Ncerske Videnskab. Selskabs, Skrifter 1948, No. 3, 1  
Investigations on silanes with light and heavy hydrogen.

1949

496. I.E. Puddington  
Can. J. Res. 27, 1 /1949/  
The determination of heavy water.
497. L.A.K. Staveley, A.K. Gupta  
Trans. Faraday Soc. 45, 50 /1949/  
A semi-micro low-temperature calorimeter, and a comparison of some thermodynamic properties of methyl alcohol and methyl deuterioxide.

1951

498. F.E. Condon  
J. Am. Chem. Soc. 73, 4675 /1951/  
Synthesis and mass spectra of some hexa-, hepta- and octadeuterated derivatives of propane.
499. M.H. Earing, J.B. Cloke  
J. Am. Chem. Soc. 73, 769 /1951/  
A new synthesis of chloroform-d.

1952

500. L.C. Leitch, A.T. Morse  
Can. J. Chem. 30, 924 /1952/  
Synthesis of organic deuterium compounds. III. 1,2-dibromoethane-d<sub>4</sub> and its derivatives.

1953

501. G.T. Armstrong  
NBS Report 2306, Feb. 24, 1953  
A compilation of vapor pressure data of deuterium compounds.
502. E.E. Bevege, R. Renaud, L.C. Leitch  
Can. J. Chem. 31, 1259 /1954/  
Synthesis of organic deuterium compounds. IX. Bistrideuteromethyl mercury.
503. L.C. Leitch, A.T. Morse  
Can. J. Chem. 31, 785 /1953/  
Synthesis of organic deuterium compounds. VII. Deuterated 3-pentanones.



504. B. Nolin  
Can. J. Chem. 31, 1257 /1953/  
Synthesis of organic deuterium compounds. VIII. Deuterium substitution products of ethyl acetate.
505. B. Nolin, L.C. Leitch  
Can. J. Chem. 31, 153 /1953/  
Synthesis of organic deuterium compounds. IV. Methyl-d<sub>3</sub> bromide.

1956

506. I.B. Rabinovich, P.N. Nikolaev, Z.E. Gochaliev, N.N. Tret'yakova  
Dokl. Akad. Nauk. SSSR 110, 241 /1956/  
Isotope effect in the vapor-liquid equilibrium of binary systems containing deuterated compounds. /R/

1958

507. E.C. Bertsche  
USAEC Research and Development Report, E.I. Du Pont de Nemours and Co., DP-325 /1958/; quoted in [529]  
Distillation of light water from heavy water moderator.

1961

508. L.N. Kauder, W. Spindel, E.U. Monse  
J. Phys. Chem. 65, 1435 /1961/  
Fractionation of oxygen isotopes by the distillation of azeotropic solutions.

1963

509. H. Craig, L.I. Gordon, Y. Horibe  
J. Geophys. Res. 68, 5079 /1963/  
Isotopic exchange effects in the evaporation of water; 1. Low temperature experimental results.

1964

510. E.U. Monse, L.N. Kauder, W. Spindel  
J. Chem. Phys. 41, 3898 /1964/  
Analysis of isotope exchange reactions among nitrogen oxides involving N<sub>2</sub>O<sub>3</sub>.

1965

511. D. Ehhalt, K. Knott  
Tellus 17, 389 /1965/  
Kinetic isotope separation during the evaporation of water. /G/



1967

- 511a. A. Selecki, B. Tymifski, G.Z. Wolkowski  
Nukleonika 12, 739 /1967/  
Effect of inorganic salts added on the relative volatility of heavy water solutions. /in Polish/

1968

512. Y. Bottinga  
Ph. D. Dissertation, Univ. of California, San Diego, 1968;  
Univ. Microfilm 68-11593 /1968/; quoted in [557]  
Isotopic fractionation in the system: calcite-graphite-carbon dioxide-methane-hydrogen-water.
513. Y. Bottinga, H. Craig  
EOS /Am. Geophys. Union Trans./ 49, 356 /1968/  
High temperature liquid-vapor fractionation factors for  $\text{H}_2\text{O}$ - $\text{HDO}$ - $\text{H}_2\text{O}^{18}$ .

1970

514. M. Rennow  
Ph. D. Thesis, II. Physikalisches Institut der Universität Heidelberg, 1970; quoted in [557]  
Equilibrium and kinetic separation factors during the evaporation of water. /G/

1971

515. M. Majoube  
J. Chim. Phys. 68, 1423 /1971/  
Fractionation of oxygen-18 and deuterium between water and vapour. /F/

1972

516. D. Lavrencic  
CNEN-RT/ING(72)18 /1972/  
Bibliography on heavy water production. Industrial processes and plants.

1973

517. J.H. Keller, P.E. Yankwich  
J. Am. Chem. Soc. 95, 4811 /1973/  
Medium effects on heavy-atom kinetic isotope effects. I.  
Cell-model without internal-external coordinate interaction.



518. R.A. Robinson  
J. Chem. Thermodyn. 5, 819 /1973/  
Excess Gibbs energies of mixing of solutions of lithium chloride and cesium chloride in water and in deuterium oxide.

1974

519. D. Lavrencic  
CNEN-RT/ING (74) 9 /1974/  
Bibliography on heavy water production. Industrial processes and plants. /2nd Rev. Edition/  
520. \_\_\_\_\_

1975

521. J. Bigeleisen  
in: "Isotopes and Chemical Principles", Ed. P.A. Rock,  
ACS Symposium Series 11, 1974, American Chemical Society,  
Washington, D.C., 1975, p. 1  
Quantum mechanical foundations of isotope chemistry.
522. T.C. Chan, W.A. Van Hook  
J. Chem. Thermodyn. 7, 1119 /1975/  
The vapor-pressure isotope effect for  $\text{CH}_3/2\text{CO}$  and  $\text{CD}_3/2\text{CO}$  from 206 to 333 K.
523. D.V. Fenby  
Conf. Int. Thermodyn. Chim., C.R. 4th 1975, /6/, 160  
Thermodynamic study of the deuterium isotope effect in hydrogen-bonded systems.
524. R. Götz  
Finn. Chem. Lett. 1975, 197  
Thermodynamics of isotopic ethanols and ethylamines. /G/
525. R. Götz  
Finn. Chem. Lett. 1975, 204  
Vapour pressure and partial vapour pressure isotope effects of isotopic ethanols, ethylamines and ethyliodides. /G/
526. T. Ishida, Z.C. Kornblum, J.S. Pollin  
Report COO-3127-12 /1975/; C.A. 85, 167555b /1976/  
Theory of inverse isotope effects.
527. P. Lejček, J. Matouš, J.P. Novák, J. Pick  
J. Chem. Thermodyn. 7, 927 /1975/  
Phase equilibria and excess molar volumes of tetrahydrofuran/1/  
+ deuterium oxide /2/.



528. M. Majoube  
C.R. Colloq. Int. Isot. Oxygene /1972/, Dep. Biol. Serv. Radioagron.,  
St.-Paul-Lez-Durance, Fr., 1975, p. 226; C.A. 84, 47539g /1976/  
Isotope analysis of oxygen in microquantities of water. Application  
to the study of hail and to the determination of isotope distribut-  
ion coefficients in the equilibrium between ice and water vapour. /F/
529. J.H. Rolston, J. den Hartog, J.P. Butler  
Report AECL-5025 /1975/  
The deuterium isotope separation factor between hydrogen and liquid  
water.
530. M.K. Stewart  
J. Geophys. Res. 80, 1133 /1975/  
Stable isotope fractionation due to evaporation and isotopic exchange  
of falling waterdrops: applications to atmospheric processes and  
evaporation of lakes.
531. M.K. Stewart, I. Friedman  
J. Geophys. Res. 80, 3812 /1975/  
Deuterium fractionation between aqueous salt solutions and water  
vapor.
532. T.B. Tripp  
J. Chem. Thermodyn. 7, 263 /1965/  
Vapor pressures of aqueous melts:  $\text{LiNO}_3 + \text{KNO}_3$  melts containing water  
or deuterium oxide.
533. G. Văsar, D. Ursu, A. Mihăilă, P. Szentgyörgyi  
"Deuterium and Heavy Water- A Selected Bibliography",  
Elsevier Sci. Publ. Co., Amsterdam-Oxford-New York, 1975
534. H.J. Wieck, T. Ishida  
Report COO-3127-11 /1975/; C.A. 86, 146108p /1977/  
Vapor pressure isotope effect in  $^{13}\text{C}$ -chlorotrifluoromethane/  
 $^{12}\text{C}$ -chlorotrifluoromethane by cryogenic distillation kinetics.

1976

535. L. Borodinsky, T. Ishida  
Report COO-3127-16 /1976/; C.A. 87, 73524e /1977/  
Studies of carbon-13 vapor pressure isotope effect in trifluoromethane.
536. T.C. Chan, W.A. Van Hook  
J. Solution Chem. 5, 107 /1976/  
Vapor pressure isotope effects in aqueous systems. VIII.  
The system dimethyl sulfoxide/ $\text{H}_2\text{O}/\text{D}_2\text{O}$ .



537. T.C. Chan, W.A. Van Hook  
J.C.S. Faraday I 72, 583 /1976/  
Vapour pressure isotope effects in aqueous systems. Part 7.  
The system [ $^1\text{H}_5$ ] pyridine + [ $^2\text{H}_5$ ] pyridine +  $\text{H}_2\text{O}$ .
538. H. Chihara, A. Inaba  
J. Chem. Thermodyn. 8, 915 /1976/  
Thermodynamic properties of solid hydrogen halides and deuterium halides. I. HCl and DCl.
539. H. Chihara, A. Inaba  
J. Chem. Thermodyn. 8, 935 /1976/  
Thermodynamic properties of solid hydrogen halides and deuterium halides. II. HBr and DBr.
540. Y.P. Handa, B.I. Mattingley, D.V. Fenby  
J.C.S. Faraday I 72, 1355 /1976/  
Thermodynamic study of the deuterium isotope effect in hydrogen-bonded systems.
541. A. Höpfner, I. Hostermann  
Z. Phys. Chem. /Frankfurt am Main/ 99, 157 /1976/  
The vapour pressure isotope effect of acetone- $\text{d}_6$ . /G/
542. H. Illy, G. Jancsó  
KFKI Report 76-10 /1976/  
Bibliography on vapour pressure isotope effects.
543. T. Ishida, Z.C. Kornblum, J.S. Pollin  
ZfI-Mitt. 5, 40 /1976/; C.A. 89, 48998w /1978/  
Theory of inverse isotope effects.
544. I. Kiss, G. Jancsó, Gy. Jáklí  
in: "Recent Results in Chemistry", Ed. B. Csákvári, Akadémiai Kiadó, Budapest, 1976, Vol. 32., p. 7  
Vapour pressure isotope effects and intermolecular interactions. /H/
545. M.V. Petropavlov, V.I. Ustinov  
Zh. Fiz. Khim. 50, 2436 /1976/  
Isotopic effects in saturated vapor of sulfur, carbon and silicon-fluorides. /R/
546. J.S. Pollin, T. Ishida  
Report COO-3127-15 /1976/; C.A. 87, 123009p /1977/  
Correlation of the vapor pressure isotope effect with molecular force fields in the liquid state.
547. J.H. Rolston, J. den Hartog, J.P. Butler  
J. Phys. Chem. 80, 1064 /1976/  
The deuterium isotope separation factor between hydrogen and liquid water.



548. S.M. Thompson  
Mol. Phys. 32, 721 /1976/  
The neon-neon interatomic potential from a study of the liquid-vapour isotope separation factor.
549. S.M. Thompson, D.J. Tildesley, W.B. Streett  
Mol. Phys. 32, 711 /1976/  
The  $^{14}\text{N}_2/^{15}\text{N}_2$  and  $^{14}\text{N}_2/^{14}\text{N}^{15}\text{N}$  liquid-vapour isotope separation factor.
550. H. Wolff  
in: "The Hydrogen Bond. Recent Developments in Theory and Experiments. III. Dynamics, Thermodynamics and Special Systems",  
Eds. P. Schuster, G. Zundel, C. Sandorfy, North-Holland Publ. Co.,  
Amsterdam, 1976, Ch. 26  
Vapor pressure studies on hydrogen and deuterium bonding.
551. H. Wolff, O. Bauer, R. Götz, H. Landeck, O. Schiller, L. Schimpf  
J. Phys. Chem. 80, 131 /1976/  
Association and vapor pressure isotope effect of variously deuterated methanols in n-hexane.
552. H. Wolff, R. Götz  
Z. Phys. Chem. /Frankfurt am Main/ 100, 25 /1976/  
The association of variously deuterated ethanols in n-hexane using vapour pressure measurements. /G/
553. H. Wolff, R. Götz  
Z. Phys. Chem. /Frankfurt am Main/ 102, 1 /1976/  
Vapor pressure isotope effect in variously deuterated ethanols and ethyl iodides. /G/
554. H. Wolff, R. Götz, O. Schiller  
Ber. Bunsenges. Phys. Chem. 80, 1321 /1976/  
Investigations of the vapour pressure of methyl iodide and trideutero-methyl iodide and their mixtures with n-hexane. /G/

1977

555. R.H. Betts, J. Bron, W.D. Buchannon, K.Y.D. Wu  
Can. J. Chem. 55, 2966 /1977/  
Oxygen-18 isotope effects in the liquid water-pyridine system as a probe of intermolecular forces.
556. J. Bigeleisen, S. Fuks, S.V. Ribnikar, Y. Yato  
J. Chem. Phys. 66, 1689 /1977/  
Vapor pressures of the isotopic ethylenes. V. Solid and liquid ethylene- $\text{d}_1$ , ethylene- $\text{d}_2$  /cis, trans, and gem/, ethylene- $\text{d}_3$ , and ethylene- $\text{d}_4$ .



557. I. Friedman, J.R. O'Neil  
Geological Surv. Prof. Pap. /U.S./ 440-KK /1977/, United States  
Government Printing Office, Washington, 1977  
Compilation of stable isotope fractionation factors of geochemical  
interest.
558. G. Jákli, D. Staschewski  
J.C.S. Faraday I 73, 1505 /1977/  
Vapour pressure of  $\text{H}_2^{18}\text{O}$  ice /-50 to  $0^\circ\text{C}$ / and  $\text{H}_2^{18}\text{O}$  water /0 to  $170^\circ\text{C}$ /.
559. G. Jancsó  
Isotopenpraxis 13, 118 /1977/  
Interpretation of the vapor pressure isotope effect of  $\text{BF}_3$ .
560. G. Jancsó, W.A. Van Hook  
Chem. Phys. Lett. 48, 481 /1977/  
The effect of intermolecular interaction on the asymmetric stretching  
vibration of  $\text{CS}_2$ .
561. G. Jancsó, W.A. Van Hook  
Can. J. Chem. 55, 3371 /1977/  
 $^{13}\text{C}$  and  $^{33,34}\text{S}$  isotope effects on the vapor pressure of liquid carbon  
disulfide.
562. W.T. King, R.E. Barletta  
J. Chem. Phys. 67, 180 /1977/  
Oxygen isotope fractionation in  $\text{H}_2\text{O}$  and the structure of liquid water.
563. I. Kiss, Gy. Jákli, G. Jancsó  
Izotóptechnika 20, 161 /1977/  
Vapor pressure isotope effects and intermolecular forces. /H/
564. Z. Kornblum  
Ph. D. Thesis, City Univ. New York, 1977; Univ. Microfilms 77-20,496;  
C.A. 88, 12255s /1978/  
Isotope effect on the zero point energy shift upon condensation.
565. H. Landeck, H. Wolff, R. Götz  
J. Phys. Chem. 81, 718 /1977/  
Two-constant model to describe amine and alcohol association from  
vapor pressure measurements.
566. M.W. Lee, J. Bigeleisen  
J. Chem. Phys. 67, 5634 /1977/  
Calculation of the mean force constants of the rare gases and the  
rectilinear law of mean force.
567. M.W. Lee, P. Neufeld, J. Bigeleisen  
J. Chem. Phys. 67, 5639 /1977/  
Liquid-vapor isotope fractionation factors in argon-krypton binary  
mixtures.



568. N.R. Miljević, Ž.V. Knežević, V.R. Dokić, J.D. Pupezin  
Bull. Soc. Chim. Beograd 42, 243 /1977/  
Apparatus for precise vapor pressure measurements. Vapor pressure of solid benzene.
569. Y. Oh, M.S. Jhon  
Daehan Hwahak Hwoejee 21, 75 /1977/  
Isotope effects on vapor pressure.
570. J.S. Pollin, T. Ishida  
J. Chem. Phys. 66, 4433 /1977/  
Medium cluster model for vapor pressure isotope effects.
571. J.S. Pollin, T. Ishida  
J. Chem. Phys. 66, 4442 /1977/  
The influence of molecular orientation on the vapor pressure isotope effect in liquid methanes.
572. S. Romano  
Z. Naturforsch. 32a, 485 /1977/  
Molecular dynamics simulation of solid  $\alpha$ -nitrogen.
573. K. Singer, A. Taylor, J.V.L. Singer  
Mol. Phys. 33, 1757 /1977/  
Thermodynamic and structural properties of liquids modelled by '2-Lennard-Jones centres' pair potentials.
574. H. Wolff, H. Landeck  
Ber. Bunsenges. Phys. Chem. 81, 1054 /1977/  
Two-constant model for the description of the selfassociation of H- and D-donor-acceptor molecules in binary mixtures from vapor pressure measurements. /G/

1978

575. L. Brodinsky, H.J. Wieck, D. Mayfield, T. Ishida  
J. Chem. Phys. 68, 3279 /1978/  
Carbon-13 vapor pressure isotope effect in  $\text{CHF}_3$ .
576. G.A. Bottomley  
Austr. J. Chem. 31, 1177 /1978/  
Vapor pressure of supercooled water and heavy water.
577. D.V. Fenby, A. Chand  
Aust. J. Chem. 31, 241 /1978/  
Enthalpy of the isotopic exchange reaction  $\text{H}_2\text{O} + \text{D}_2\text{O} \rightarrow 2\text{HDO}$ .
578. A. Inaba, H. Chihara  
J. Chem. Thermodyn. 10, 45 /1978/  
Thermodynamic properties of solid hydrogen halides and deuterium halides. III. HI and DI.



579. G. Jáklí, P. Tzias, W.A. Van Hook  
J. Chem. Phys. 68, 3177 /1978/  
Vapor pressure isotope effects in the benzene /B/-cyclohexane /C/  
system from 5 to 80°C. I. The pure liquids B-d<sub>0</sub>, B-d<sub>1</sub>, ortho-, meta-,  
and para-B-d<sub>2</sub>, B-d<sub>6</sub>, C-d<sub>0</sub>, and C-d<sub>12</sub>. II. Excess free energies and  
isotope effects on excess free energies in the solutions B-h<sub>6</sub>/B-d<sub>6</sub>,  
C-h<sub>12</sub>/C-d<sub>12</sub>, B-h<sub>6</sub>/C-h<sub>12</sub>, B-d<sub>6</sub>/C-h<sub>12</sub>, and B-h<sub>6</sub>/C-d<sub>12</sub>.
580. G. Jancsó, W.A. Van Hook  
J. Chem. Phys. 68, 3191 /1978/  
Vapor pressure isotope effects in benzene-cyclohexane systems.  
III. Theoretical analysis.
581. G. Jancsó, W.A. Van Hook  
Acta Chim. Hung. 98, 183 /1978/  
On the interpretation of precise data on vapor pressures of molecular  
isotopic isomers.
582. G. Jancsó, W.A. Van Hook  
Physica 91A, 619 /1978/  
The excess thermodynamic properties of solutions of isotopic isomers,  
one in the other.
583. G. Jancsó, W.A. Van Hook  
J. Mol. Struct. 48, 107 /1978/  
The effect of condensation on vibrational anharmonicity as determined  
by the vapor pressure isotope effect.
584. M.S. Jhon, H. Eyring  
in: "Theoretical Chemistry, Vol. 3: Advances and Perspectives"-  
Eds. H. Eyring, D. Henderson, Academic Press, New York, 1978, p. 55;  
C.A. 91, 44580x /1979/  
A model of the liquid state. Three-phase partition functions.
585. Z.C. Kornblum, T. Ishida  
J. Chem. Phys. 69, 1814 /1978/  
Isotope effect on the zero point energy shift upon condensation.  
I. Formulation and application to ethylene, methane, and fluoro-  
methanes.

1979

586. D. Götz, M.W. Lee, J. Bigeleisen  
J. Chem. Phys. 70, 5731 /1979/  
<sup>13</sup>C/<sup>12</sup>C and <sup>18</sup>O/<sup>16</sup>O liquid-vapor isotopic fractionation factors in  
CO as a function of temperature.
587. P.G. Hill, R.D.C. MacMillan  
Ind. Eng. Chem. Fundam. 18, 412 /1979/  
A saturation vapor pressure equation for heavy water.



588. A. Höpfner, Ch. Hörner, A.A. Hamid, M. Schaller, U. Funk  
Ber. Bunsenges. Phys. Chem. 83, 1031 /1979/  
On the triple point of neopentane. /G/
589. Gy. Jákli, P. Tzias, W.A. Van Hook  
Acta Chim. Hung. 99, 121 /1979/  
The vapor pressure isotope effect of perdeuteroheptane from 5 to 80°C.
590. H. Landeck, H. Wolff  
Chem. Phys. Lett. 64, 406 /1979/  
The significance of the Wilson constants in the theoretical description of vapor pressures over binary mixtures.
591. R.C. Phutela, D.V. Fenby  
Aust. J. Chem. 32, 197 /1979/  
Deviations from Raoult's law in  $H_2O + D_2O$  liquid mixtures.
592. Ā. Selecki, A.G. Chmielewski  
Isotopenpraxis 15, 99 /1979/  
The influence of addition of inorganic carbonates on the relative volatility factor of light and heavy water at temperatures close to the isotope effect inversion temperature.
593. J. Szydłowski, H. Wolff  
Can. J. Chem. 57, 1350 /1979/  
Hydrogen bonding and vapor pressure isotope effect of ethanethiol.

#### ERRATUM

267. should read:  
J. Bigeleisen  
J. Chem. Phys. 35, 2246 /1961/  
Erratum: Statistical mechanics of isotope effects on the thermodynamic properties of condensed systems. /See 266/



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